

The original specimens of *E. sulphurella* have the head bright yellow, but the thorax and abdomen very pale; they appear to be immature, and possibly should show brighter colours.

*Prosopis fulvicornis*, Smith.

This species has been rediscovered at Kalamunda, Feb. 9-28, 1914, and March 1-11, 1914 (850 ft.), by Mr. R. E. Turner. Smith's description is good, but the sex described is male, not female, and the yellow spot on anterior femora is at the apex, not at the base. The second s.m. is very broad (long). The type of *fulvicornis* was in the Baly collection, and until now the species has not been represented in the British Museum.

*Prosopis elongata*, Smith.

Kalamunda, Feb. 9-28 (*R. E. Turner*; British Museum). The wings are dusky and the second s.m. is not especially long.

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LII.—Notes on *Fossorial Hymenoptera*.—XXII. On new Ethiopian Species. By ROWLAND E. TURNER, F.Z.S., F.E.S.

Family *Psammocharidæ*.

Genus *BATOZONUS*, Ashm.

*Batozonus*, Ashm. *Canad. Entom.* xxxiv. p. 81 (1902).

*Heteronyx*, Sauss. *Soc. Entom.* ii. p. 3 (1887) (nom. præocc.).

The type of *Batozonus* is *B. algidus*, Sm., that of *Heteronyx* is *H. madecassus*, Sauss. The tarsal unguis are bifid in the male, but in the female the unguis of the fore tarsus only are bifid, the others being unidentate. The cubitus of the hind wing originates before the transverse median nervure in both sexes, and the third cubital cell is always shorter than the second on the radius, often almost quadrate. The middle joints of the flagellum are strongly arcuate beneath in the male. The differences between the sexes are very striking in this genus.

Key to the Ethiopian Species of *Batozonus*.

♀ ♀.

1. Cubitus of hind wing originating at a distance before the transverse median nervure equal to more than half of the length of the third joint of the flagellum. *B. fuliginosus*, Klug.  
Cubitus of the hind wing originating at a distance before the transverse median nervure scarcely exceeding one-eighth of the length of the third joint of the flagellum ..... 2.
2. Wings yellow, with a broad fuscous or fusco-violaceous apical margin ..... *B. capensis*, Dahlb.  
Wings black flushed with blue ..... 3.
3. Legs bright fulvo-ferruginous ..... 4.  
Legs black, fore legs sometimes partly fusco-ferruginous ..... *B. separabilis*, Turn.
4. Pronotum and scutellum yellow ..... *B. capensis*, Dahlb., var.  
Thorax entirely black ..... *B. gowdeyi*, Turn.

♂ ♂.

1. Cubitus of the hind wing originating at a distance before the transverse median nervure equal to more than half of the length of the third joint of the flagellum. *B. fuliginosus*, Klug.  
Cubitus of the hind wing originating at a distance before the transverse median nervure never exceeding one-third of the length of the third joint of the flagellum. 2.
2. Wings flavo-hyaline, with a fuscous margin; frontal carina not strongly raised; clypeus with a median carina only. .... *B. capensis*, Dahlb.  
Wings fuscous flushed with blue; frontal carina very high and sharp; clypeus with an oblique carina on each side from near the base ..... 3.
3. Legs fulvo-ferruginous; dorsal surface of scutellum convex ..... *B. gowdeyi*, Turn.  
Legs black, fore legs only ferruginous; dorsal surface of scutellum flat ..... *B. separabilis*, Turn.

*Batozonus separabilis*, sp. n.

♀. Nigra; mandibulis, clypeo, fronte parte inferiore, scapo, tibiis anticis, femoribus anticis apice, tarsisque anticis basi fusco-ferrugineis; flagello, articulis tribus apicalibus exceptis, fulvo; alis nigro-cæruleis.

♂. Niger; capite, pronoto, mesonoto, tegulis, scutello pedibusque anticis sordide ferrugineis; flagello supra infuscato; alis fusco-cæruleis, cellulis apicali discoidalique secunda subhyalinis.

Long., ♀ 17-19 mm., ♂ 13-14 mm.

Var. ♀. Pedibus anticis fere omnino nigris.

Var. ♂. Scutello nigro.

♀. Clypeus broadly rounded at the apex; the labrum very shallowly emarginate at the apex and divided by a deep longitudinal sulcus. Second joint of the flagellum long, about half as long again as the third; eyes reaching the base of the mandibles, distinctly divergent towards the clypeus, separated on the vertex by a distance about equal to the length of the third joint of the flagellum. Pronotum widely arched posteriorly, not angulate in the middle; the anterior angles very broadly rounded. Scutellum with a flat dorsal surface, narrowly rounded at the apex; median segment gradually sloped posteriorly, without a median sulcus. Sixth dorsal segment broadly rounded at the apex and thinly clothed with long black hairs. Third abscissa of the radius shorter than the second, a little shorter than the second transverse cubital nervure; second recurrent nervure received beyond the middle of the third cubital cell; basal nervure of the fore wing interstitial; cubitus of the hind wing originating just before the transverse median nervure. Fore tarsi with a long comb, three spines on the basal joint. Ungues of the fore tarsi bifid, of the others unidentate.

♂. Clypeus very broadly rounded at the apex, subcarinate longitudinally in the middle; from the base a low carina branches towards the anterior angles, but does not extend to them. Labrum rounded at the apex, without a sulcus. A very high sharp carina between the antennæ extending to the base of the clypeus. Front marked with an arched low carina on each side below the anterior ocellus, the area below the carinæ slightly concave. The joints of the flagellum from the fifth to the ninth are strongly arcuate beneath, the second joint is equal to the third. Pronotum arcuate on the posterior margin, rather strongly narrowed in front. Seventh ventral segment with a longitudinal carina. Third abscissa of the radius shorter than in the female, being scarcely more than half as long as the second transverse cubital nervure. All the tarsal ungues bifid.

*Hab.* Mlanje, Nyasaland, October to March (*S. A. Neave*); Usagara District, German East Africa, 2500 ft., December (*S. A. Neave*).

The female of this species closely resembles the tropical form of *B. fuliginosus*, Klug, and, like that species, varies much in the colour of the antennæ and front; it may, however, at once be distinguished by the great difference in the point of origin of the cubitus of the hind wing, which in *fuliginosus* is separated from the transverse median nervure by a distance exceeding half the length of the third joint of the flagellum, whereas in *separabilis* the distance does not

exceed one-eighth of the length of that joint. The male is very different from *fuliginosus*, and though it differs much from the female, the sexual dimorphism is not as marked as in that species.

*Batozonus gowdeyi*, sp. n.

♀. Nigra; mandibulis fusco-ferrugineis; femoribus, tibiis tarsisque ferrugineis; alis nigro-cæruleis.

♂. Niger; mandibulis, clypeo, fronte, orbitis posticis, femoribus, tibiis tarsisque ferrugineis; flagello subtus fusco-ferrugineo; pronoto margine posteriore fascia obliqua utrinque flava; alis fusco-purpureis.

Long., ♀ 15-17 mm., ♂ 13-15 mm.

♀. Except in colour this species strongly resembles *B. separabilis*, but has the scutellum more strongly compressed, without a flat dorsal surface, and distinctly longitudinally carinate in the middle; the clypeus is transverse at the apex; the labrum without a sulcus and very narrowly notched in the middle; the two apical dorsal segments more finely punctured.

♂. The differences between this and the male of *separabilis* are mostly in colour, but the scutellum is much more strongly compressed in *gowdeyi*.

*Hab.* Uganda, Mabira Forest, July (*C. G. Gowdey*); Tero Forest, July (*C. G. Gowdey*); Tero Forest, 3800 ft., September (*S. A. Neave*); Bugoma Forest, Unyoro, 3700 ft., December (*S. A. Neave*).

A single specimen labelled "West Africa" from F. Smith's collection.

This is very near *separabilis*, and will doubtless prove to be the western representative of that species; but the difference in the form of the scutellum seems to be a sufficient specific distinction.

*Batozonus capensis*, Dahlb.

*Pompilus capensis*, Dahlb. Hymen. Europ. i. p. 49 (1843). ♀.

*Pompilus rindex*, Sm. Descr. New Species Hymen. p. 144 (1879). ♀.

*Pompilus ancyloneurus*, Cam. Ann. Transvaal Mus. ii. p. 123 (1910).

♀.

A variety of the female from Magadi Junction, British East Africa, has the wings fuscous flushed with blue. The male from the same locality is normal.

*Batozonus fuliginosus*, Klug.

- Pompilus fuliginosus*, Klug, Symb. physic. t. xxxviii. fig. 6 (1834). ♀.  
*Pompilus festivus*, Klug, Symb. physic. t. xxxviii. fig. 8 (1834). ♂.  
*Pompilus bretonii*, Guér. Mag. de Zool. xiii. p. 4 (1843). ♀ (nec ♂).  
*Pompilus vindictus*, Sm. Cat. Hym. B.M. iii. p. 142 (1855). ♀.  
*Pompilus iridipennis*, Sm. Descr. New Species Hymen. p. 144 (1879).  
 ♀.  
*Pompilus sepulchralis*, Sm. Descr. New Species Hymen. p. 145 (1879).  
 ♀.  
*Priocnemis atlanticus*, Kirby, Ann. & Mag. Nat. Hist. (5) xiii. p. 408  
 (1884). ♀ (nec ♂).  
*Pompilus solanus*, Kohl, Jahrb. wiss. Anstalt. Hamburg, x. p. 184  
 (1893). ♀.  
*Pompilus contentiosus*, Grib. Ann. Mus. Civ. Genova, xxi. p. 305  
 (1884). ♀.  
*Anoplus o'neili*, Cam. Rec. Albany Mus. i. p. 127 (1904). ♂.

This is distinguished from the other Ethiopian species of *Batozonus* by the great distance between the point of origin of the cubitus of the hind wing and the transverse median nervure. The female in tropical Africa always has the wings black flushed with blue, the abdomen entirely black, and the antennæ varying from yellow to black. But the typical form figured by Klug has the wings yellow-brown with a fuscous margin and a dull yellow band at the base of the second dorsal segment; this is the Saharan form, having been described by Klug from Dongola; it was also obtained by Wollaston from Sal Island in the Cape Verde Group, though the usual tropical form was described by Kirby from St. Vincent in the western part of the same group. The ground-colour of the male abdomen varies from black to dull ferruginous. The species seems to range over the whole of Africa except the extreme north, and is represented in Madagascar by the nearly allied *B. madecassus*, Sauss. In India it is replaced by the allied *B. unifasciatus*, Sm.

## Family Crabronidæ.

## Subfamily STIZINÆ.

*Stizus lughensis*, Magr.

*Stizus lughensis*, Magr. Ann. Mus. Civ. Genova, xxxix. p. 606 (1898).

♀. Nigra; mandibulis basi, labro, clypeo dimidio apicali, orbitis internis et externis latissime, fronte sub antennis, scapo subtus, pronoto margine posteriore, postscutello, segmento dorsali primo macula parva transversa utrinque, secundoque fascia lata interrupta flavis; clypeo dimidio basali, antennis, pronoto, mesonoto

lateribus, tegulis, scutello, segmentis ventralibus, segmentis dorsalibus primo, quinto sextoque, segmento secundo basi, pedibusque ferrugineis; alis fusco-hyalinis, apice late hyalinis, cellula radiali fusca, venis nigris.

Long. 24 mm.

♀. Apical joint of the flagellum conical, fully as long as the penultimate; clypeus with a few shallow punctures on the apical half, the basal half with closer and smaller piliferous punctures. Inner margin of the eyes almost parallel. Scutellum with a large puncture or depression near the middle, as in *S. ruficornis*; thorax finely and closely punctured. First dorsal segment much more finely punctured than the rest of the abdomen; sixth dorsal segment very finely and not very closely punctured, rather narrowly rounded at the apex. First transverse cubital nervure straight.

*Hab.* Bohotle, Somaliland (*Appleton*).

This is very near *S. ruficornis*, but differs much in the colour of the wings and abdomen. The sixth dorsal segment is also more finely and sparsely punctured, and is rather more narrowly rounded at the apex, and the pygidial area more clearly defined. The punctures of the clypeus are also less distinct.

*Stizus ritsemæ*, Handl.

*Stizus ritsemæ*, Handl. Sitzungsber. Akad. Wiss. Wien, civ. p. 1000 (1895). ♀.

*Hab.* Ilorin, N. Nigeria, April (*J. W. Scott Macfie*).

A single female in the British Museum.

*Stizus multicolor*, sp. n.

♂. Ferrugineus; mesonoto, mesopleuris, segmento mediano basi late, segmento dorsali primo apice, secundo basi late, tertioque basi nigris; clypeo, labro, fronte sub antennis, scapo subtus, pronoto margine posteriore, postscutello fascia apicali, segmento mediano fascia interrupta transversa, segmento dorsali primo macula parva utrinque, segmentis 2-5 fascia lata interrupta, sextoque dimidio basali flavis; alis hyalinis, venis ferrugineis, cellulis radiali cubitalibusque secundo tertioque infuscatis.

♀. Mari simillima, segmentis dorsalibus secundo tertioque basi ferrugineo-maculatis, fasciis flavis latissime interruptis.

Long., ♂ 18 mm., ♀ 21 mm.

♂. Clypeus widely but not deeply emarginate; eyes parallel on the inner margin; apical joint of the flagellum

no longer than the penultimate, slightly curved and excavate beneath, very blunt at the apex; thorax and the whole abdomen finely and closely punctured; seventh dorsal segment narrowly rounded at the apex; first transverse cubital nervure curved; second abscissa of the radius as long as the first.

♀. Apical joint of the flagellum very blunt at the apex; scutellum without a median depression; the whole insect more finely punctured than the male, the punctures on the first dorsal segment microscopic; sixth dorsal segment closely and not finely punctured, clothed with very short fulvous setæ, narrowly rounded at the apex, the margins of the pygidial area not elevated. Basal joint of the anterior tarsi with six spines.

*Hab.* Uganda; Elephant Camp, Toro, November, 4 ♂♂ (*R. E. McConnell*); Semliki Plains, near southern shore of Lake Albert, 2200 ft., November, 2 ♀♀ (*S. A. Neave*).

In the form of the female sixth dorsal segment, which is produced and narrowly rounded at the apex, this resembles *S. rubellus*, Turn., but in that species the cloud on the fore wing is very faint and does not extend beyond the radial cell; the apical joint of the flagellum is also blunter in *multicolor* and the yellow markings very different, also the fulvous setæ of the sixth dorsal segment. In *S. ferrugineus*, Sm., the clypeus is more deeply emarginate. Handlirsch gives *ferrugineus* as a synonym of *zonatus*, Klug, but this is quite wrong in my opinion.

*Stizus rubroflavus*, sp. n.

♀. Ferruginea; clypeo dimidio apicali, fronte sub antennis, scapo subtus, pronoto margine posteriore, segmento dorsali primo macula utrinque, segmentis 2-5 dorsalibus et ventralibus fascia late interrupta, segmento dorsali sexto macula magna utrinque flavis: alis hyalinis, venis testaceis, cellula radiali leviter infumata.

Long. 20 mm.

♀. Clypeus broad, deflexed from the middle and widely emarginate at the apex, the basal portion subcarinate in the middle and smooth, the apical portion and the labrum coarsely but shallowly punctured. Frontal scutellum between the antennæ and the base of the clypeus short, about twice as broad as long. Thorax almost smooth; scutellum without a median depression; median segment closely punctured. Abdomen shining, the two basal segments almost smooth; the apex of the third and the whole of the fourth

and fifth finely and closely punctured; sixth dorsal segment more distinctly punctured, rather broadly rounded at the apex, the pygidial area distinct but without strongly raised sides. Basal joint of the fore tarsus with seven long spines. Second abscissa of the radius much shorter than the first; the curvature of the first transverse cubital nervure very distinct.

*Hab.* Gambia (*Simpson*), March.

This is not the female of *ferrugineus*, Sm., which occurs in the same locality. That species was described from a male in which the first transverse cubital nervure is straight; the female of *ferrugineus* is very similar in colour to *rubroflavus*, but has the mesonotum black and has a median depression on the scutellum, the clypeus is not deflexed from the middle and is more sparsely punctured, and the puncturation of the thorax and abdomen, though fine, is much more distinct than in *rubroflavus*. Both species are on the wing in March.

*Stizus aurifluus*, sp. n.

♀. Nigra; clypeo, labro, mandibulis basi, fronte sub antennis, pronoto margine posteriore, segmento dorsali primo macula transversa utrinque, segmentis dorsalibus 2-5 fascia lata interrupta flavis; capite, antennis, pronoto, mesonoto lateribus, scutello, segmento mediano, pygidio pedibusque ferrugineis; pygidio apice dense aureo-sericeo; alis hyalinis, venis fuscis; costa late infuscata.

Long. 25 mm.

♀. Clypeus broadly emarginate, the emargination slightly angular in the middle; inner margin of the eyes almost parallel; apical joint of the antennæ conical, as long as the penultimate. Thorax finely and very closely punctured, scutellum without a median depression; pubescence long and greyish, more dense on the median segment than elsewhere. Abdomen closely and very distinctly punctured; sixth dorsal segment more closely punctured, clothed with ferruginous pubescence at the base, with shining golden pubescence at the apex, with a well-marked pygidial area, very broadly rounded at the apex. Basal joint of the fore tarsi with eight stout but not very long spines. Second abscissa of the radius shorter than the first; the costa thickened and forming a very distinct rounded stigma at the base of the radial cell.

*Hab.* Yapi, Gold Coast (*Simpson*).

This is very near *chrysorrhæus*, Handl., but differs from S.-African specimens sent by Dr. Brauns under that name in

the much broader pygidial area, the much stronger puncturation of the abdomen, the colour of the nervures, and the costal infuscation, which in *chrysorrhæus* is confined to the radial and second and third cubital cells, the more clearly defined stigma, and the more deeply emarginate clypeus. The spines of the basal joint of the fore tarsus are shorter and more numerous than in *chrysorrhæus*.

*S. marshalli*, Turn., is also near *chrysorrhæus*, but has the pygidial area much less distinct and also somewhat broader, with the golden pubescence almost absent; the colouring, especially on the first dorsal segment, is also different. A variety of *chrysorrhæus* from Marsabit, British East Africa, has the basal dorsal segment ferruginous in the middle in both sexes, but appears to be identical otherwise. It is possible that *S. aurifluus* may prove to be the female of *S. tenuicornis*, Sm., but the colour of the wings is different.

*Stizus neavei*, Turn.

*Stizus neavei*, Turn. Ann. & Mag. Nat. Hist. (8) ix. p. 343 (1912).  
♂ ♀.

This species, from North Rhodesia, is nearly allied to the South-African *Stizus imperialis*, Handl, but may be distinguished by the deeply emarginate clypeus as well as by the less extensive yellow markings. The seventh tergite of the male is much narrower than in *S. imperialis*.

*Stizus franzi*, nom. nov.

*Stizus neavei*, Kohl, Rev. Zool. Afric. iii. 1, p. 209 (1913). ♀ (nec Turner).

There is a single specimen of the female in the British Museum from Kambove, Katanga, 4000-5000 ft., taken by Neave in June 1907.

*Stizus simpsoni*, sp. n.

♀. Nigra; clypeo, labro, antennis, fronte sub antennis, pronoto, tegulis, mesopleuris, mesonoto lateribus, scutello, postscutello, segmento mediano pedibusque fusco-ferrugineis; alis anticis fusco-violaceis, basi usque ad aream discoidalem primam hyalinis, margine lato apicali hyalino aream cubitalem tertiam haud attingente; alis posticis dimidio basali hyalinis; segmento mediano nigro-piloso.

Long. 21 mm.

♀. Eyes converging towards the clypeus, separated at the

base of the clypeus by a distance almost equal to the combined length of the second and third joints of the flagellum. Thorax very closely punctured; median segment more deeply punctured than the thorax, without an impressed median line, clothed with short, erect, black hairs. First dorsal segment finely and rather closely punctured, the four following segments more closely punctured; sixth dorsal segment with very sparse and large setigerous punctures, narrowly truncate at the apex, the lateral margins near the apex distinctly carinate. Basal joint of the fore tarsus with seven spines.

*Hab.* Yapi, Gold Coast (*Simpson*).

This may be distinguished from all other species of the *tridentatus* group with similar colouring of the wings by the black hairs of the median segment. From *fenestratus*, Sm., which occurs in the same district, it is also distinguished by the puncturation of the first dorsal segment, by the very different sculpture of the sixth dorsal segment, and colour-differences. The colour of the abdomen separates it from *pæcilopterus*, Handl., *mionii*, Guér., and *amœnus*, Sm. The sculpture of the sixth dorsal segment seems to be peculiar to this species, all other allied species having that segment much more closely punctured.

#### *Stizus klugii*, Sm.

*Larra apicalis*, Klug, Symb. phys. tab. xlv. fig. 13 (1845). ♀.

*Larra klugii*, Sm. Cat. Hym. B.M. iv. p. 345 (1856).

A female specimen from Magadi Junction, British East Africa, has the two apical dorsal segments yellow-brown, with the sides of the third and fourth segments and a spot on each side near the apex of the second segment yellow. I look on this as a colour-variety only, though it may possibly be of subspecific importance.

#### Subfamily *LARRINÆ*.

##### *Tachytes admirabilis*, sp. n.

♀. Nigra; fronte argenteo-pubescente, abdomine segmentis dorsalibus aureo-pubescentibus, area pygidiali fusco-aureo-setosa; alis anticis infuscatis, posticis subhyalinis, venis nigris.

Long. 23 mm.

♀. Clypeus scarcely convex, the apical margin almost transverse, very finely and closely punctured, with a few large scattered punctures, clothed with short silver pubes-

cence, slightly deflexed from the middle to the apex. Eyes separated on the vertex by a distance nearly equal to the combined length of the two basal joints of the flagellum; second joint of the flagellum distinctly longer than the third. Median segment more than half as long again as the scutellum, with a very obscure impressed median line; the posterior slope rather indistinctly transversely striated, with a deep median sulcus; pubescence of the thorax and median segment greyish and very sparse. Dorsal surface of the abdomen densely covered with golden pubescence, which is denser and brighter on the apical than on the basal half of the segments; apical half of the fifth dorsal segment and basal half of the first without golden pubescence. Pygidial area elongate, very narrowly rounded at the apex, densely clothed with short setæ, which change according to the light from fulvous-gold to black. Second ventral segment shining, with sparse and fairly large punctures. Basal joint of the fore tarsus with six spines. Second abscissa of the radius a little longer than the third, both being distinctly longer than the space between the two recurrent nervures.

*Hab.* Uganda; Eastern Mbale district, S. of Mt. Elgon, 3700 ft., August 2-5; Mbale Kumi road, S. of Lake Salisbury, 3700 ft., August 15-17; between Kumi and N.E. shore of Lake Kioga, 3600 ft. (*S. A. Neave*); Entebbe, August 15 (*C. G. Gowdey*).

This is very near *T. mira*, Kohl, but differs in the dark fore wings, in the distinctly greater distance between the eyes on the vertex, in the coarser pubescence of the pygidial area (this area being also rather narrower at the apex), and in the greater size.

The male of this species differs from the male *mira* in the infuscate fore wings, in the shape of the seventh dorsal segment, which is truncate at the apex, not very broadly rounded as in *mira* (this segment in both species is very broad, not narrow as in *observabilis*, Kohl); the eighth ventral segment is much more shallowly emarginate, with shorter teeth at the apical angles than in *mira*.

#### *Tachytes mira*, Kohl.

*Tachytes mira*, Kohl, Ann. Naturhist. Hofmus. Wien, ix. p. 205 (1894).  
♀.

*Hab.* Delagoa Bay (*Dr. Brauns*).

According to my identification this species is also found  
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at Salisbury, Mashonaland (*Marshall*); Mlanje, Nyasaland (*Neave*); and probably also in Uganda.

This occurs in Nyasaland together with *T. observabilis*, which is very similar in colour.

*Tachytes dilaticornis*, sp. n.

♂. Niger, aureo-pilosus; capite, thorace segmentoquo mediano pallide aureo-pilosis; abdomine læte aureo-pubescente, segmentis dorsalibus fascia apicali densius aureo-pubescente, segmentis dorsalibus et ventralibus apice late brunneis; tegulis fuscis; alis flavis, apice latissime infuscatis; flagello articulis 2-7 infra valide dilatatis.

Long. 14 mm.

♂. Clypeus finely and closely punctured, very broadly rounded at the apex, the apical margin narrowly depressed in the middle. Eyes strongly convergent above, separated on the vertex by a distance not exceeding the length of the third joint of the flagellum. The second joint and those following as far as the seventh joint of the flagellum very strongly arcuate-dilatate beneath, the second and fourth joints both distinctly longer than the third, their greatest breadth exceeding half their length. Head, thorax, and median segment clothed with pale golden pubescence, that on the abdomen much brighter. Median segment more than twice as long as the scutellum; a depressed median line on the surface of the posterior slope, but not extending to the dorsal surface except at the extreme apex. Basal joint of the fore tarsus with five slender spines. Eighth ventral segment broadly rounded or subtruncate at the apex, without lateral spines. Second abscissa of the radius shorter than the third, the first recurrent nervure as far from the second as from the first transverse cubital nervure. The fuscous margin of the fore wing extends to the first transverse cubital nervure.

*Hab.* Kujja Valley, S. Kavirondo, British East Africa, 4000 ft., April 30-May 1, 1911 (*S. A. Neave*); 4 ♂♂.

This species is easily distinguished by the strongly dilated antennal joints. In the species of *Tachytes* with golden pubescence on the abdomen the form of the eighth ventral segment of the male gives excellent specific characters.

*Tachytes memnon*, sp. n.

♀. Nigra; clypeo, fronte genisque aureo-pilosis; flagello articulis duobus basalibus æapoque ferrugineis; tibiis tarsisque anticis,

femoribusque anticis apico brunneo-ferrugineis; alis nigris, caeruleo-tinctis; tegulis brunneis.

Long. 18 mm.

♀. Clypeus very broadly rounded at the apex, almost transverse, the apical margin narrowly transversely depressed, with two small teeth on each side, finely and rather closely punctured. Second joint of the flagellum as long as the first and third combined; eyes separated on the vertex by a distance equal to the length of the second joint of the flagellum; an obscure longitudinal sulcus on the vertex behind the posterior ocelli. Pubescence of the thorax, median segment, and abdomen blackish, the median segment about half as long again as the scutellum, with a very obscure median line. Abdomen microscopically punctured, subopaque, the pubescence on the dorsal surface black, a little closer on the apical than on the basal portion of the segments. Sixth dorsal segment rather broadly rounded at the apex, clothed with stiff black hairs. Second ventral segment closely and evenly punctured, the apical margin almost smooth. Basal joint of the fore tarsus with five spines on the outer margin. Second abscissa of the radius shorter than the third, equal to the distance between the two recurrent nervures.

*Hab.* Mlanje, Nyasaland, April (*S. A. Neave*).

This is allied to *T. natalensis*, Sauss., but I do not think that it is the female of that species, which was described from a male. The pubescence of the clypeus and front is white in *natalensis*. The two species are doubtless very nearly related.

#### *Tachytes nigropilosellus*, Cam.

*Liris nigropilosellus*, Cam. Ann. Transvaal Mus. ii. p. 132 (1910).

*Tachytes gigas*, Bisch. Arch. f. Naturges. p. 66, A, 3 (1913). ♀.

Cameron has placed this species in the wrong genus, as Bischoff thought probable. I have seen Cameron's type. The species is quite distinct from *natalensis*, Sauss., the male *nigropilosellus* having the clypeus and front covered with long black hairs and the eighth ventral segment rather deeply emarginate on the middle of the apical margin, but without lateral spines, whereas in *natalensis* the front and clypeus are clothed with short white pubescence and the emargination of the eighth ventral segment is extremely shallow.

Subfamily *NITELINÆ*.*Nitela rufiventris*, sp. n.

♀. Nigra; mandibulis, scapo, flagello articulis duobus basalibus, tegulis, abdomine pedibusque rufo-ferrugineis; alis hyalinis, iridescentibus, venis testaceis, stigmatibus radioque nigris.  
Long. 3.5 mm.

♀. Clypeus not strongly convex, without a distinct carina. Eyes strongly divergent towards the clypeus, separated on the vertex by a distance equal to the length of the two basal joints of the flagellum. Head finely and closely punctured, the front thinly clothed with short pale golden pubescence; posterior ocelli almost touching the eyes. Pronotum nearly as long as the scutellum, not sunk below the mesonotum, the margins only very slightly raised, so that the usual transverse sulcus is not well defined. Mesonotum closely and finely punctured, with a row of larger punctures before the scutellum, which is almost smooth. Median segment coarsely longitudinally striated, rounded at the apical angles, the posterior slope more finely transversely striated. Abdomen smooth and shining. Legs unarmed.

*Hab.* Monkey Bay, Lake Nyasa, June (*W. A. Lamborn*).

The neurulation is as in typical *Nitela*, but the species is easily recognized by the colour.

LIII.—*Notes on the Apidæ (Hymenoptera) in the Collection of the British Museum, with Descriptions of new Species.*  
By GEOFFREY MEADE-WALDO, M.A.\*

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## VII.

THE following notes and descriptions were prepared during the recent rearrangement of the collection of Apidæ in the Museum.

Much valuable information on the type-specimens &c. contained in the British Museum has already been published by Professor Cockerell, who had studied them during a

\* [We deeply regret the death of our valued contributor Mr. G. Meade-Waldo, who passed away on the 11th of March at the early age of 32. The proof of this paper, which he sent to the 'Annals' shortly before his death, has been kindly corrected by Mr. R. E. Turner.—EDS. 'Annals.']